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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,736	03/22/2004	Raschid J. Bezama	FIS920040003US1	2735

23550 7590 03/24/2006

HOFFMAN WARNICK & D'ALESSANDRO, LLC
75 STATE STREET
14TH FL
ALBANY, NY 12207

EXAMINER

BOECKMANN, JASON J

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.

10/708.736

Applicant(s)	
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BEZAMA ET AL.

Examiner

Jason J. Boeckmann

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 1, 3, 4, 6, 9-11, 13 and 15-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/6/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on 1/6/2006. These drawings are acceptable.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Nowhere in the specification does it state that the first vortex and second vortex have main bodies nor does it state that the main body of the first vortex and the main body of the second vortex are fluidly interconnected.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.
 - A. Claims 1, 5, 9 and 11 each recite the limitation "each partition".
There is insufficient antecedent basis for this limitation in the

claims. Examiner suggests that it be changed to "each of said at least one partition."

- B. Claims 3, 10 and 11, each recite the limitation "each side cavity". There is insufficient antecedent basis for this limitation in the claims. Examiner notes that in claim 1, only a side cavity is claimed.
- C. Claim 6 recites the limitation "the partition" in line 2. There is insufficient antecedent basis for this limitation in the claim. Examiner suggests that it be changed to "each of said at least one partition."
- D. Claim 13 recites the limitation "each second vortex" in line 2. There is insufficient antecedent basis for this limitation in the claim. Examiner notes that in claim 1, only a second vortex is claimed.
- E. Claim 15 recites the limitation "each cavity" in line 2. There is insufficient antecedent basis for this limitation in the claim. Examiner notes that it is unclear as to which cavity is being referred to.
- F. Claim 16 and 19 both recite the limitation "each first vortex." There is insufficient antecedent basis for this limitation in the claims. Examiner suggests that it be changed to "each of said at least one first vortex."

- G. Claim 16 and 19 both recite the limitation "the second vortex."
There is insufficient antecedent basis for this limitation in the claims. Examiner suggests that it be changed to "each of said at least one second vortex."
- H. Claim 17 recites the limitation "the first and second vortices" in line 1. There is insufficient antecedent basis for this limitation in the claim. Examiner suggests that it be changed to "said at least one first vortex and said at least one second vortex."
- I. Claims 18 and 20 both recite the limitation "each second vortex."
There is insufficient antecedent basis for this limitation in the claims. Examiner suggests that it be changed to "each of said at least one second vortex."

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 5,6, 9-12, 14-17 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lindström et al (5,800,679).

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8. Lindström et al shows a cleaner (10) for removing particles from a surface (W) by propelling a fluid onto the surface. The cleaner has at least one partition (17) adjacent to the nozzle (20). Each partition defining a central cavity (25) configured to define the fluid into a first vortex and a side cavity (16) configured to define the fluid into a second vortex. The fluid nozzle (20) is adjustable (column 4, lines 62-5) and can be adjusted to propel the fluid substantially perpendicular onto the surface (w). The cleaner also includes a vacuum (not shown) to remove at least part of the escaping fluid (column 4, lines 54-6). In regards to claims 5 and 6, each partition (17) of the cleaner (10) is separated from the surface (W) by a partition distance and the nozzle (20) is distanced from the surface by a nozzle standoff distance, and the partition distance is less than a distance from the centerline of the fluid nozzle (20) to the partition (17) (figure 1). Regarding claims 9 and 10, as depicted in figure 1, the distance between the nozzle (20) and the partition (17) is greater than five times than inner diameter of the nozzle (20) as well as the ratio of the lateral distance between the partition (17) and the vacuum entry (15) to the partition distance is greater than 10. Regarding claims 11 and 12, as depicted in figure 1, the central cavity (25) forms an angle with the horizontal between 0 and 65 degrees, at or around the pointer labeled 17. The angle that the side cavity (16) forms with the horizontal appears to be between 20 and 90 degrees due to the nature of its shape, and the angle between the central cavity (25) and the vertical edge of the fluid nozzle (20) appears to be about 90 degrees. With respect to claim 14 and 15, the cleaner (10) is placed above the surface (W) and each cavity (14) extends in a planar fashion (figure 1). In regards to claims 16 and 17, Lindström et al's invention

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includes a means for delivering a fluid under pressure to an area on the surface (11), a means for forming fluid departing the surface into at least one first vortex adjacent the area and in contact with the surface (17), and at least one second vortex adjacent to the first vortex (25) and means for evacuating particles by removing art of the second vortex (16), the second vortex being counter-rotating to the first vortex. Lastly, the method of claim 19 is performed with the structure of Lindström et al's invention.

Allowable Subject Matter

9. Claims 16 to 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Response to Arguments

10. Applicant's arguments filed on 1/6/2006 have been fully considered but they are not persuasive.

11. With respect to applicant's argument regarding claim 1, applicant states that the first and second vortices of Lindstrom are not fluidly connected. Examiner notes that referring to figure 1, fluid does in fact travel from the first vortex (in cavity 25) to the second vortex (in cavity 16). In addition, applicant argues that the first vortex of Lindstrom is not adjacent to the second vortex. Examiner notes that first vortex (in cavity 25) is in fact adjacent to the second vortex (in cavity 16). There is no partition or physical element separating the first vortex from the second vortex.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Boeckmann whose telephone number is (571) 272-2708. The examiner can normally be reached on 7:30 - 5:00 m-f, first Friday off.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JJB

JJB

3/17/06


David A. Scherbel
Supervisory Patent Examiner
Group 3700